

Table S-4: Recent Trends in U.S. Greenhouse Gas Emissions and Sinks using the TAR GWPs (Tg CO<sub>2</sub> Eq.)

<b>Gas/Source</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
<b>CO<sub>2</sub></b>	<b>5,003.7</b>	<b>4,966.2</b>	<b>5,062.4</b>	<b>5,179.3</b>	<b>5,272.1</b>	<b>5,334.4</b>	<b>5,514.8</b>	<b>5,595.4</b>	<b>5,614.2</b>	<b>5,680.7</b>	<b>5,883.1</b>	<b>5,794.8</b>
Fossil Fuel Combustion	4,814.8	4,786.4	4,882.3	4,999.9	5,085.6	5,141.5	5,325.8	5,400.0	5,420.5	5,488.8	5,692.2	5,614.9
Natural Gas Flaring	5.5	5.6	5.1	6.5	6.6	8.7	8.2	7.6	6.3	6.7	5.5	5.2
Cement Manufacture	33.3	32.5	32.8	34.6	36.1	36.8	37.1	38.3	39.2	40.0	41.2	41.4
Lime Manufacture	11.2	11.0	11.4	11.6	12.1	12.8	13.5	13.7	13.9	13.5	13.3	12.9
Limestone and Dolomite Use	5.5	4.8	4.8	4.9	5.6	7.0	7.6	7.1	7.3	7.7	5.8	5.3
Soda Ash Manufacture and Consumption	4.1	4.0	4.1	4.0	4.0	4.3	4.2	4.4	4.3	4.2	4.2	4.1
Carbon Dioxide Consumption	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.3
Waste Combustion	14.1	15.7	16.3	17.1	17.8	18.5	19.4	21.2	22.5	23.9	25.4	26.9
Titanium Dioxide Production	1.3	1.3	1.5	1.6	1.7	1.7	1.7	1.8	1.8	1.9	1.9	1.9
Aluminum Production	6.3	6.4	6.3	5.8	5.1	5.3	5.6	5.6	5.8	5.9	5.4	4.1
Iron and Steel Production	85.4	76.2	75.0	69.9	73.6	74.4	68.3	71.9	67.4	64.4	65.8	59.1
Ferroalloys	2.0	2.0	2.0	2.0	1.8	1.9	2.0	2.0	2.0	2.0	1.7	1.3
Ammonia Production and Urea Application	19.3	19.2	20.0	20.4	21.1	20.5	20.3	20.7	21.9	20.6	19.6	16.6
Land-Use Change and Forestry (Sink) <sup>a</sup>	(1,072.8)	(1,060.8)	(1,066.8)	(1,066.2)	(1,070.6)	(1,064.2)	(1,061.0)	(840.6)	(830.5)	(841.1)	(834.6)	(838.1)
International Bunker Fuels <sup>b</sup>	113.9	119.9	109.9	99.8	98.0	101.0	102.3	109.9	112.9	105.3	99.3	97.3
<b>CH<sub>4</sub></b>	<b>705.3</b>	<b>705.3</b>	<b>708.8</b>	<b>699.3</b>	<b>706.9</b>	<b>711.9</b>	<b>697.5</b>	<b>689.5</b>	<b>682.0</b>	<b>674.2</b>	<b>671.8</b>	<b>663.6</b>
Stationary Sources	8.9	9.0	9.5	8.9	8.9	9.3	9.6	8.2	7.9	8.1	8.4	8.1
Mobile Sources	5.4	5.4	5.4	5.4	5.4	5.3	5.2	5.1	5.0	4.9	4.9	4.7
Coal Mining	95.4	91.9	89.6	76.3	77.0	80.5	74.9	74.6	74.4	69.8	66.8	66.5
Natural Gas Systems	133.6	135.6	135.8	139.5	140.3	139.4	139.6	138.0	135.8	131.7	132.7	128.5
Petroleum Systems	30.1	30.4	29.1	27.9	27.0	26.5	26.2	25.8	25.1	23.7	23.2	23.3
Petrochemical Production	1.3	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.6
Silicon Carbide Production	+	+	+	+	+	+	+	+	+	+	+	+
Enteric Fermentation	129.1	128.3	130.8	130.1	131.9	134.7	131.9	129.6	127.8	127.7	126.7	125.8
Manure Management	34.3	36.4	35.2	36.1	38.8	39.6	38.2	40.0	42.7	42.6	41.9	42.6
Rice Cultivation	7.8	7.7	8.6	7.7	9.0	8.3	7.6	8.2	8.7	9.1	8.2	8.4
Field Burning of Agricultural Residues	0.7	0.7	0.8	0.7	0.9	0.7	0.8	0.8	0.9	0.8	0.9	0.8
Landfills	232.3	232.0	235.2	237.4	237.7	236.7	232.3	227.2	221.7	223.1	225.4	222.3
Wastewater Treatment	26.4	26.7	27.4	27.8	28.5	29.1	29.4	29.9	30.3	30.8	31.0	31.0
International Bunker Fuels <sup>b</sup>	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
<b>N<sub>2</sub>O</b>	<b>379.6</b>	<b>384.8</b>	<b>394.3</b>	<b>394.6</b>	<b>420.1</b>	<b>411.5</b>	<b>421.8</b>	<b>421.0</b>	<b>417.1</b>	<b>413.4</b>	<b>410.5</b>	<b>405.4</b>
Stationary Source	12.0	11.7	12.1	12.4	12.5	12.6	13.2	13.1	13.1	13.1	13.6	13.5
Mobile Sources	48.3	50.6	53.7	56.0	57.7	58.2	58.0	57.6	57.0	56.1	54.9	52.3
Adipic Acid	14.5	14.2	12.5	13.4	14.4	16.4	16.3	9.8	5.7	5.2	5.8	4.7
Nitric Acid	17.0	17.0	17.5	17.7	18.7	19.0	19.8	20.3	19.9	19.2	18.2	16.8
Manure Management	15.4	15.9	15.7	16.1	16.1	15.8	16.2	16.5	16.5	16.6	17.1	17.2
Agricultural Soil Management	255.5	258.3	265.7	261.3	282.4	271.2	279.9	284.7	285.6	283.6	281.3	281.0
Field Burning of Agricultural Residues	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Human Sewage	12.1	12.5	12.7	12.9	13.4	13.3	13.5	13.8	14.0	14.4	14.5	14.6
N <sub>2</sub> O Product Usage	4.1	4.0	3.8	4.3	4.3	4.3	4.3	4.6	4.6	4.6	4.6	4.6

Waste Combustion	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
International Bunker Fuels <sup>b</sup>	0.9	1.0	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8
<b>HFCs, PFCs, and SF<sub>6</sub></b>	<b>91.7</b>	<b>86.0</b>	<b>88.2</b>	<b>92.9</b>	<b>91.6</b>	<b>95.2</b>	<b>106.6</b>	<b>109.8</b>	<b>120.5</b>	<b>112.3</b>	<b>112.5</b>	<b>101.7</b>
Substitution of Ozone Depleting Substances	0.9	0.8	1.7	5.5	8.3	19.0	25.1	32.0	37.8	43.1	48.8	54.5
Aluminum Production	16.8	14.6	13.5	12.8	11.3	10.9	11.5	10.1	8.3	8.2	7.3	3.9
HCFC-22 Production <sup>c</sup>	35.9	31.6	35.8	32.6	32.4	27.7	31.9	30.8	41.2	31.2	30.6	20.3
Semiconductor Manufacture <sup>d</sup>	3.3	3.3	3.3	4.1	4.6	6.8	6.3	7.6	8.4	9.0	8.5	6.5
Electrical Transmission and Distribution <sup>e</sup>	29.8	31.0	28.9	32.6	30.1	25.5	25.7	23.4	19.4	15.2	14.3	14.2
Magnesium Production and Processing <sup>f</sup>	5.0	4.7	5.0	5.1	5.0	5.2	6.1	5.9	5.4	5.6	2.9	2.3
<b>Total</b>	<b>6,180.4</b>	<b>6,142.3</b>	<b>6,253.8</b>	<b>6,366.0</b>	<b>6,490.8</b>	<b>6,553.1</b>	<b>6,740.6</b>	<b>6,815.6</b>	<b>6,833.7</b>	<b>6,880.6</b>	<b>7,077.9</b>	<b>6,965.5</b>

+ Does not exceed 0.05 Tg CO<sub>2</sub> Eq.

<sup>a</sup> Sinks are only included in net emissions total, and are based partially on projected activity data. Parentheses indicate negative values (or sequestration).

<sup>b</sup> Emissions from International Bunker Fuels are not included in totals.

<sup>c</sup> HFC-23 emitted

<sup>d</sup> Emissions from HFC-23, CF<sub>4</sub>, C<sub>2</sub>F<sub>6</sub>,C<sub>3</sub>F<sub>8</sub> SF<sub>6</sub>, and the addition of NF<sub>3</sub>

<sup>e</sup> SF<sub>6</sub> emitted

Note: Totals may not sum due to independent rounding.